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 GenCore version (c) 1993 - 2000
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KALM_HUMAN
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GAS3_ARATH
GAS4_ARATH
IBP_CARCR
GST1_LYCES
EP4_CANFA
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EP4_RABIT
RSI1_LYCES
GAS1_ARATH
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ERB4_HUMAN
ERB3_RAT
ERB3_HUMAN
BAR3_CHITE
ZAN_PIG
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XMRK_XIPMA
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           4 rhesus papi

1 homo sapien

2 ovis aries

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7 gallus gall

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Harris N.L., Harvey D., Helman T.J., Hernandez J.R., Houck J., Harris N.L., Harvey D., Helman T.J., Wei MH., Ibegwam C., Jalali M., Kalush F., Karpen G.H., Ke Z., Kennison J.A., Ketchum K.A., Jalali M., Kalush F., Karpen G.H., Ke Z., Kennison J.A., Ketchum K.A., Kimmel B.E., Kodita C.D., Kraft C., Kravitz S., Kulp D., Lai Z., Lasko P., Lei Y., Levitsky A.A., Li J., Li Z., Liang Y., Lin X., Liu X., Mattei B., McIntosh T.C., McLeod M.P., McPherson D.,	Dodson K., Doup L.E., Downes M., Dugan-Rocha S., Dunkov B.C., Dunn P., Durbin K.J., Evangelista C.C., Ferraz C., Ferriera S., Fleischmann W., Fosler C., Gabrielian A.E., Garg N.S., Gelbart W.M., Glasser K., Glodek A. Gong F. Gorrell J. H. Gu. 7. Guan D. Harris M.	K.C., Busam D.A., Butler H., Cadieu E., Center A., Chan J.M., Cawley S., Dahlke C., Davenport L.B., Davies P., los B., Delcher A., Deng Z., Mays A.D., Dew I., Dietz S.	Ballew R.M., Basu A., Baxendale J., Bayraktaroglu L., Beasley E.M., Beeson K.Y., Benos P.V., Berman B.P., Bhandari D., Bolshakov S., Borkova D., Botchan M.R., Bouck J., Brokstein P., Brottier P.,	<pre>C., Blazej R.G., Champe M., Pfeiff E.G., Helt G., Nelson C.R., Miklo n HJ., Andrews-Pfannkoch C., Bal</pre>	tides P.G., Scherer S.E., Li P.W., Hoskins R.A., Galle e R.A., Lewis S.E., Richards S., Ashburner M., Henderson G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.	. Evans C.A., Gocavne T D	J. Mol. Biol. 215:217-224(1990).	MEDILNE=91012382; PUDMed=1970815; Silar P., Theodore L., Mokdad R., Erraiss NE., Cadic A., Wegnez M.; "Metallothionein Mto gene of Drosophila melanogaster: structure and regulation ".		tem."; c. Natl. Acad. Sci. U.S.A. 84:2658-2662(1987).	STRAIN=OREGON-R; MEDLINE=87204190; PubMed=3106973; Mokdad R., Debec A., Wegnez M.; "Metallothionein genes in Drosophila melanogaster constitute a dual	SEQUENCE FROM N.A.	Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta; Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Ephydroidea; Drosophilidae; Drosophila.		Ol-OCT-1989 (Rel. 12, Created) Ol-OCT-1989 (Rel. 12, Last sequence update) Ol-OCT-2000 (Rel. 40, Last annotation update) METALLOTHIONEIN 2 (MT-2).	OME T2_DROME STANDARD; 11956; Q9VDM2;

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M84C_DROME
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"The genome sequence of Drosophila melannogaster.";

E. Science 287:2185-2195(2000)
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Matches
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                                                                                                                                                                            M84C_DROME STANDARD; PI
Q01644; Q9VIAO;
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01-JUL-1993 (Rel. 26, Last annot
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MALE SPECIFIC SPERM PROTEIN MSTE
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STRAIN=OREGON-R;
MEDLINE=92102953;
                                       SEQUENCE FROM
                                                                           Pterygota; Neoptera; Endopterygota; Diptera; Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                   Eukaryota;
                                                                                                                                      Drosophila melanogaster (Fruit fly)
                                                                                                                                                             MST84DC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRINTS; PR00872; MTDIPTERA.

Metal-binding; Chelation; Copper; Cadmium; Zinc.
SEQUENCE 43 AA; 4525 MW; 5EEOCF9171BD9A97 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FLYBASE; FBgn0002869; MtnB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; M16250; AAA28683.1; -.
EMBL; X52098; CAA36318.1; -.
EMBL; A5003730; AAF55768.1;
PIR; S14706; SMFF2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ONLY 26% SIMILAR.
SIMILARITY: BELONGS TO FAMILY 5 IN METALLOTHIONEIN SUPERFAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LARVAL STAGES.

LARVAL STAGES.

INDUCTION: STRONGLY INDUCED BY CADMIUM, COPPER AND MERCURY.

MISCELLANEOUS: ALL CYSTEINE RESIDUES ARE ARRANGED IN C-X-C
THESE ARE THOUGHT TO BE THE METAL-BINDING SITES IN OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FUNCTION: THIS PROTEIN BIDDS CATIONS OF SEVERAL TRANSITION ELEMENTS. THOUGHT TO BE INVOLVED IN METAL ION HOMEOSTASIS. DEVELOPMENTAL STAGE: EXPRESSED PREDOMINANTLY IN EMBRYONIC AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIMILARITY: THE TWO DROSOPHILA METALLOTHIONEINS
                                                                                                                                                                                                                                                                                                                                                                                   CKGCGTNCQCSAQKCGDNCACNKDCQCVC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity 20. 6; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IPR000966;
                                                                                                                     Metazoa; Arthropoda;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Milshina N.V., Mobarry C., Morris J., Moshrefi A.,
                                                                                                                                                                            Rel. 26, Last sequence update)
Rel. 40, Last annotation updat
SPERM PROTEIN MST84DC.
                                       Z
A
PubMed=1684716;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; Score 77; DB : Pred. No. 4.2; 23; Mismatches
                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                     Tracheata;
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                                                                                                                                                                                                                                                                                55
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                                                                                                                     Hexapoda; Insecta;
                                                                                              Brachycera;
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Matches

Conservative

23;

Score 68; DB Pred. No. 25; Mismatches

Length 55; 0; Indels

0;

Gaps

0

88.3%; 17.9%;

Best Local Similarity

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RA Harris N.L. Harvey D. Heiman T.J. Hernandez J.R. Houck J.

RA Harris N.L. Houston K.A., Howland T.J., Wei M.-H., Ibeywam C.,

RA Jalali M., Kalush F., Karpen G.H., Ke Z., Kennison J.A., Ketchum K.A.,

RA Jalali M., Kalush F., Karpen G.H., Ke Z., Kennison J.A., Ketchum K.A.,

RA Kimmel B.E., Kodira C.D., Kraft C., Kravitz S., Kulp D., Lai Z.,

RA Liu X., Mattei B., McIntosh T.C., McLeod M.P., McPherson D.,

RA Liu X., Mattei B., McIntosh T.C., McLeod M.P., McPherson D.L.,

RA Merkulov G., Milshina N.V., Wobarry C., Morris J., Moshrefi A.,

RA Merkulov G., Milshina N.V., Wobarry C., Morris J., McPherson D.L.,

RA Mentor D.R., Nelson K.A., Nixon K., Nusskern D.R., Pacleb J.M.,

RA Nelson D.R., Nelson K.A., Nixon K., Nusskern D.R., Pacleb J.M.,

RA Nelson D.R., Nelson K.A., Nixon K., Nusskern D.R., Pacleb J.M.,

RA Reinert K., Remington K., Sanders R.D.C., Scheeler F., Shen H.,

RA Spier E., Spradling A.C., Stapleton M., Stupski M.P., Smith T.,

RA Spier E., Spradling A.C., Stapleton M., Strong R., Sun E.,

RA Williams S.M., Woodage T., Worley K.C., Wu D., Yang S., Yao Q.A.,

RA Ye J., Yeh R.-F., Zaveri J.S., Zhan M., Zhang G., Zhao Q., Zheng L.,

RA Zheng X.H., Zhong F.N., Zhong W., Zhou X., Smith H.O.,

RA Zheng R.A., Myers E.W., Rubin G.M., Venter J.C.,

"The genome sequence of Drosophila melanogaster.";

RC -1-*TISGIF SEPSTICTYV* TPETTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RX MEDLINE-20196006; PubMed=10731132;
RA Adams M.D., Celniker S.E., Holt R.A., Evans C.A., Gocayne J.D.,
RA Adams M.D., Celniker S.E., Li P.W., Hoskins R.A., Galle R.F.,
RA Amanatides P.G., Scherer S.E., Li P.W., Hoskins R.A., Galle R.F.,
RA George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,
Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
Sutton G.G., Wortman J.R., Salazej R.G., Champe M., Pfeiffer B.D.,
RA Barandon R.C., Royers Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D.,
RA Barandon R.C., Royers Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D.,
RA Baril J.F., Agbayani A., Baxter E.G., Helt G., Nelson C.R., Miklos G.L.G.,
RA Ballew R.M., Basu A., Baxendale J., Baraktaroglu L., Beasley E.M.,
Beeson K.Y., Benos P.V., Berman B.P., Bhandari D., Bolshakov S.,
RA Borkova D., Botchan M.R., Bouck J., Brokstein P., Brottier P.,
RA Burtis K.C., Busam D.A., Butler H., Cadieu E., Center A., Chandra I.,
RA Gerry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA de Pablos B., Delcher A., Deng Z., Mays A.D., Dew I., Dietz S.M.,
Dodson K.J., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Durbin K.J., Evangelista C.C., Ferraz C., Ferriera S., Pleischmann W.,
RA Glodek A., Gong F., Gorrell J.H., Gu Z., Guan P., Harris M.,
RA Harris N.I., Harvar D., Harmandez I.P., Harris M.,
RA Harris N.I., Harvar D., Harmandez I.P., Harris M.,
                                                                        EMBL; X67703; CAA47939
EMBL; AE003672; AAF540;
HSSP; P01180; 1NPO
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Schaefer M.
                                                                                                                                                                         modified and this statement is not removed entitles requires a license agreement (See or send an email to license@isb-sib.ch).
                                                   FLYBASE;
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                                                                                                                                                                                                                                                                                                                                                                                                                                    -!- TISSUE SPECIFICITY: TESTIS.
-!- DEVELOPMENTAL STAGE: PRIMARY SPERMATOCYTES.
-!- DOMAIN: THIS PROTEIN IS MOSTLY COMPOSED OF REPETITIVE C-G-P
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FBgn0004174; MSt84Dc.
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55 AA; 5225 MW; 9
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Multigene family.
WW; 95A12F3AEC88BD6C CRC64;
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RESULY 3

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                                                                                   RA Adams N.D., Celniker S.E., Holt R.A., Evans C.A., Gocayne J.D., RA Adams M.D., Celniker S.E., Holt R.A., Hoskins R.A., Galle R.F., RA Amanatides P.G., Scherer S.E., Li P.M., Hoskins R.A., Galle R.F., RA Amanatides P.G., Scherer S.E., Edhards S., Ashburner M., Henderson S.N., Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X., RA Brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfeliffer B.D., Barandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfeliffer B.D., Abril J.F., Apbayani A., An H.-J., Andrews-Pfannkoch C., Baldwin D., Ballw R.M., Basu A., Baxendale J., Bayraktaroglu L., Beasley E.M., Ra Beeson K.Y., Beans P.V., Berman B.P., Bhandari D., Bolshakov S., Ra Borkova D., Botchan M.R., Bouck J., Brokstein P., Brottier P., Rottier P., Cadley S., Dahlke C., Davenport L.B., Davies P., Ra Borkova D., Botchan M.R., Bouck J., Brokstein P., Brottier P., Rottier P., Davies P., Bhandari D., Botchan M.E., Bouck J., Brokstein P., Brottier P., Stepler P., Brottier P., Stepler P., Weiler Klamer P., Brotter P., Weiler P., Brotter P., Brotter P., Wang A.H., Wang X., Brotter P., Brotter P.
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Q01642; Q9VIA3;
Q1-JUL-1993 (Re)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-JUL-1993 (Rel. 26, Created)
01-JUL-1993 (Rel. 26, Last sequence update)
01-OCT-2000 (Rel. 40, Last annotation updatmance specific SPERM PROTEIN MST84DA.
                                                                         -!- DEVELOPMENTAL STAGE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=20196006; PubMed=10731132;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=92102953; PubMed=1684716;
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Pterygota;
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ch. Dev. 35:143-151(1991).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Neoptera;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Drosophilidae; Drosophila
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                                                                         PRIMARY SPERMATOCYTES
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                                      REPETITIVE C-G-P
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M84D_DROME
ID M84D_DA
AC 001645
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Best Local
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01-JUL-1993 (Rel. 26,
01-NOV-1997 (Rel. 35,
MALE SPECIFIC SPERM E
                                                                                                                                              modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        M84D_DROME
Q01645;
                                                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on in
                                                                                                                                                                                                                                                                                                                                                                                                                                                            of Drosophila melanogaster.";
Mech. Dev. 35:143-151(1991).
-i- TISSUE SPECIFICITY: TESTIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta; Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Musc Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL;
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use by non-profit institutions as long as its content
modified and this statement is not removed. Usage by an
  Spermatogenesis; Repeat; Multigene family. SEQUENCE 68 AA; 6480 MW; 2F2BD26128DE3DEF
                                                                                                                                                                                                                                                                                                                                                                                                          -!- DEVELOPMENTAL STAGE: PRIMARY SPERMATOCYTES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=92102953; PubMed=1684716;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HSSP; P01180; 1NPO.
FLYBASE; FBgn0004172; MSt84Da.
                                                    FLYBASE; FBgn0004175; Mst84Dd
                                                                                                       EMBL; X67703;
                                                                                                                                                                                                                                                                                                                                                             -!- SIMILARITY: BELONGS TO THE MST(3)CGP FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Schaeter M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN=OREGON-R;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "A cluster of four genes selectively
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                                                                                  P01180;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AE003672;
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                                                                                                       CAA47940.1;
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26, Last sequence update)
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RM PROTEIN MST84DD.
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17.9%;
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Query Match
Best Local Similarity
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Mismatches

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Score 68; Pred. No.

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Length 68;

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01-JUL-1993
                                                                                                                                                                                       01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation updat)
WDNM1 PROTEIN PRECURSOR.
             STRAIN-FVB/N;
                                                                                    Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                         Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                     Q62477;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FLYBASE; FBgn0004173; Mst84Db.
Spermatogenesis; Repeat; Multigene family.
SEQUENCE 74 AA; 6824 MW; D0793137A7E7D1D0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This SWISS-PROT entry is copyright. It is produced through a collaboratic between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on it use by non-profit institutions as long as its content is in no was modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "A cluster of four genes selectively expressed of brosophila melanogaster.";
Mech. Dev. 35:143-151(1991).
-i- TISSUE SPECIFICITY: TESTIS.
-i- DEVELOPMENTAL STAGE: PRIMARY SPERMATOCYTES.
-i- DOMAIN: THIS PROTEIN IS MOSTLY COMPOSED OF
                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                WDNM_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; X67703; CAA47938.1; HSSP; P01180; 1NPO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-JUL-1993
01-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A. STRAIN=OREGON-R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta; Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Musc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MST84DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Schaefer M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=92102953; PubMed=1684716;
Kuhn R., Kuhn C., Boersch D., Glaetzer K.H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ephydroidea; Drosophilidae; Drosophila
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Drosophila melanogaster (Fruit fly)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  M84B_DROME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIMILARITY: BELONGS TO THE MST(3)CGP FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 UL-1993 (Rel. 26, Last sequence update)
OV-1997 (Rel. 35, Last annotation update)
SPECIFIC SPERM PROTEIN MST84DB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGSCCSPCGSCCAPWGPCGPCGGCCGGC
                                                                                                                                                                       OR EXPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
5; Conser
                                FROM
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N.A.
TISSUE=BREAST
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                                                                                    Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               88.3%;
17.9%;
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Pred. No.
                                                                                  Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
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                                                                                                                                                                                                                     update;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 74;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT
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Best Local Similarity 17.9%;
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                   P14730;
01-APR-1990 (Rel. 1
01-NOV-1997 (Rel. 3
30-MAY-2000 (Rel. 3
                                                                "The WDNM1 gene product is a novel member of the 'four-disulphide core' family of proteins.";
Blochem Blophys. Res. Commun. 176:247-254(1991).
-i- FUNCTION: INVOLVED IN THE METASTATIC POTENTIAL OF ADENOCARCING IN RAT. COULD HAVE PROTEINASE INHIBITING CAPACITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                            MEDLINE=91207400; PubMed Dear T.N., Kefford R.F.;
                                                                                                                                                                                                                              Dear T.N., Ramshaw I.A., Kefford R.F.; "Differential expression of a novel gemanmary adenocarcinoma cells.";
                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
TISSUE=BREAST CARCINOMA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIGNAL
                          -!- SIMILARITY: BELONGS TO THE WAP-TYPE 'FOUR-DISULFIDE CORE' FAMILY
                                                                                                                                                                         TISSUE=THYMUS;
                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                 Cancer Res. 48:5203-5209(1988).
                                                                                                                                                                                                                                                                        MEDLINE=88310901; PubMed=3136918;
                                                                                                                                                                                                                                                                                                                                 Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                          Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                                                                            WDNM1
                                                                                                                                                                                                                                                                                                                                                                                         WDNM1 PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             WDNM_RAT
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SIGNAL 1 24
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PROSITE; PS00317; 4_DISULFIDE_CORE;
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                                                      IN RAT. COULD HAVE F
TISSUE SPECIFICITY:
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SWISS-PROT entry'is copyright.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                14, Created)
35, Last sequence up
39, Last annotation
                                                                                                                                                          PubMed=2018519;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7787 MW;
                                                                                                                                                                                                                                                                                                                              Chordata; Craniata; Vertebrata; Euteleostomi; Rodentia; Sciurognathi; Muridae; Murinae; Rat
                                                        SPLEEN,
                                                                                                                                                                                                                                                                                                                                                                                      (FRAGMENT)
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Pred. No.
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                                                      KIDNEY, BRAIN,
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                                                        LIVER,
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through a collaboration
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                                                                                  ADENOCARC I NOMAS
                                                        AND
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RESULT 6
EP4_RABIT
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NON_TER
DOMAIN
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                                                                                                                                                                                                                                                                                               Submitted (MAY-1995) to the EMBL/GenBank/DDBJ databases :- FUNCTION: POSSIBLE FUNCTION IN SPERM MATURATION.
-!- SUBCELLULAR LOCATION: SECRETED (POTENTIAL).
-!- TISSUE SPECIFICITY: EPIDIDYMIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                              15-JUL-1998 (Rel. 36, Created)
15-JUL-1998 (Rel. 36, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
MAJOR EPIDIDYMIS-SPECIFIC PROTEIN E4 (EPIDIDYMAL PROTEIN BE-20)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                 INTERFERO, ---
PFAM; PF00095; wap; 2.
PFAM; PF000917; 4_DISULFIDE_CORE;
                                                                                                                                                                                                            use by non-profit institutions as long modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q28631;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; X13309; CAA31688.1; ALT_INIT. PIR; JH0390; JH0390. HSSP; P19957; 2REL.
                                                                                                                                                EMBL; U26725; AAA66525.1; HSSP; P19957; 1FLE.
                                                                                                                                                                                 entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                TISSUE=EPIDIDYMIS; Wang L.F.;
                                                                                                                                                                                                                                                                                                                                                                                                         Oryctolagus cuniculus (Rabbit).
Eukaryota: Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EP4_RABIT
                                                 CARBOHYD
                                                               DOMAIN
                                                                                                                                   INTERPRO;
                                                                                                                                                                                                                                  the European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                   -!- SIMILARITY: BELONGS TO THE WAP-TYPE 'FOUR-DISULFIDE CORE' FAMILY.
                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                  Mammalia;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Protease inhibitor;
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nes 5; Conser
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TE; PS00317; 4_DISULFIDE_CORE;
                                                                                                                                   IPR002221; -.
                                                                                                                                                                                                                                                                                                                                                                                                  Eutheria;
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95
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Pred. No.
                                                          WAP 1.
WAP 2.
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51802C70CDAF0521 CRC64;
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58BAF723BD74D7F3
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31;
DB
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                                  CRC64;
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Length
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                                               (POTENTIAL).
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RESULT 10
GAS1_A
ID GAS2_A
AC P46689
DT 01-NOV
DT 15-DEC
DE GIBBER
GN GASA1.
OS ARBDIAG
OC EURAY
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RSI1_LYCES
                                                                                                                                                                                                                           Query Match
Best Local S
Matches 5
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Matches 5; Conservative
                                                     GAS1_ARATH
P46689;
01-NOV-1995
01-NOV-1995
15-DEC-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RS11_LYCES
P47926;
01-FEB-1996
01-FEB-1996
01-NOV-1997
                                                                                                                                                                                                                                                                                                                 Signal.
SIGNAL
                                        01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last Sequence update)
15-DEC-1998 (Rel. 37, Last annotation update)
GIBBERELLIN-REGULATED PROTEIN 1 PRECURSOR.
                Arabidopsis
                                                                                                                                                                                                                                                                                                        CHAIN
                                                                                                                                                                                                                                                                                                                                                                                   or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                            use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                               This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MO1. Gen. Genet. 243:148-157(1994).
-!- SUBCELLULAR LOCATION: SECRETED (POTENTIAL).
-!- TISSUE SPECIFICITY: EXPRESSED VERY EARLY IN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN=CV. VENT; TISSUE=ROOT;
MEDLINE=94232181; pubMed=8177211;
Taylor B.H., Scheuring C.F.;
Taylor B.H., Scheuring C.F.;
"A molecular marker for lateral root initiation: the RSI-1 gene tomato (Lycopersicon esculentum Mill) is activated in early late root primordia.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Lycopersicon esculentum (Tomato).
Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;
Magnoliophyta; eudicotyledons; core eudicots; Asteridae; euasterids
Solanales; Solanaceae; Solanum.
  Eukaryota;
                                                                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                               EMBL;
                                                                                                                                                                                                                                                                                                                                                         EMBL; L22188;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -!- INDUCTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RSI-1 PROTEIN PRECURSOR (TR132). RSI-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                    the European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -!- PTM: SIX DISULFIDE BONDS MAY BE PRESENT.
-!- SIMILARITY: BELONGS TO THE GAST1 FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                          36
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                                                                                                                                                                                                   2 XXCXXXCXXXXXXXXXXXXXXXXXXXXXXXX
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                                                                                                                                                                                                                                                                                                                                              L22189;
                                                                                                                                                                                                                           Similarity 17.9
5; Conservative
  Viridiplantae;
                                                                                                                                                                                                                                                                                           96
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(Rel. 33, Last sequence up
(Rel. 35, Last annotation
               thaliana
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                                                                                                                                                                                                                                                                                           AA;
                                                                                                                                                                                                                                                                                                                                              AAA20130.1;
                                                                                                                                                                                                                                                                                                                                                          AAA20129.1;
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                                                                                                          STANDARD;
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                                                                                                                                                                                                                                                                                                        96
                (Mouse-ear cress)
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Embryophyta;
                                                                                                                                                                                                                             23;
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                                                                                                                                                                                                                                       Score 68;
Pred. No.
                                                                                                                                                                                                                                                                                       POTENTIAL.
RSI-1 PROTEIN.
C17C826648148CE3 CRC64;
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Mismatches
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Tracheophyta; Spermatophyta;
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RESULT 11
GAS2_ARATH
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                                Jant
                                              Herzog M., Dorne A.-M., Grellet F.; "GASA, a gibberellin-regulated generalated to the tomato GAST1 gene.", plant Mol. Biol. 27:743-752(1995).
                                                                                                              STRAIN=CV. COLUMBIA;
MEDLINE=95244835; Pub
                                                                                                                                                SEQUENCE FROM
                                                                                                                                                                                   Brassicales;
                                                                                                                                                                                                Magnoliophyta;
                                                                                                                                                                                                                 Eukaryota; Viridipiantae;
                                                                                                                                                                                                                                 Arabidopsis thaliana (Mouse-ear cress).
                                                                                                                                                                                                                                                   GASA2
                                                                                                                                                                                                                                                               GIBBERELLIN-
                                                                                                                                                                                                                                                                                  01-NOV-1995
01-FEB-1996
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; U11766;
EMBL; Z29940;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Raynal M., Grellet F., Laudie M., Meyer Y., Cooke R., Delseny Submitted (FEB-1994) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN=CV. COLUMBIA; TISSUE=SILIQUES; MEDILINE=95244835; PubMed=7727751; Herzog M., Dorne A.-M., Grellet F.; "GASA, a glbberellin-regulated gene family related to the tomato GAST1 gene."; Plant Mol. Biol. 27:743-752(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Brassicales;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Magnoliophyta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                              2 XXCXXXCXXXXXXXXXXXXXXXXXXXXXXXXX
STEPS OF GEI
SUBCELLULAR
               FUNCTION: INVOLVED IN LATE STAGES STEPS OF GERMINATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        s SWISS-PROT entry is copyright. It is produced through ween the Swiss Institute of Bioinformatics and the Ewen the Swiss Institute. There are no restriby non-profit institutions as long as its content
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE SPECIFICITY: EXPRESSED IN FLOWER LOWER LEVELS SEEN IN THE ROOTS AND ROSET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIMILARITY: BELONGS TO THE GAST1 FAMILY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FUNCTION: MAY FUNCTION IN SOME HORMONAL CONTROLLED
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                                                                                                                                                                                                                                                                                                                                                                                                                                 IDCGSACVARCRLSRRPRLCHRACGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity 17. 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          and this statement is not removed requires a license agreement (See an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTION: BY GIBBERELLINS.
SIX DISULFIDE BONDS MAY BE PRESENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             family;
                                                                                                                                                                                                                                                              (Rel. 32,
(Rel. 32,
(Rel. 33,
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                                                                                                                                                                                 Brassicaceae;
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                                                                                                                                                N.A.
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                                                                                                                                                                                              eudicotyledons; core eu
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                                                                                                                                                                                                                                                                                                                                                 STANDARD;
                                                                                                              IA; TISSUE=SEED;
PubMed=7727751;
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10718 MW;
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17.9%;
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                                                                                                                                                                                                                                                                 PROTEIN 2 PRECURSOR.
                                                                                                                                                                                 Arabidopsis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 68;
Pred. No.
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                                                                                                                                                                                             eudicots;
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                                                                                                                                                                                                                                                                                update)
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                                                                                                                                                                                                              Tracheophyta; Spermatophyta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB
37;
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                                                                                thaliana
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Query Match Best Local Similarity

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RESULT
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SEQUENCE
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                         SIGNAL
                                                  EMBL; U11764; AAB06308.1; -.
                                                                                          entities
                                                                                                                           This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EN the European Bioinformatics Institute. There are no resti
                                                                                                                                                                                                                                Herzog M., Dorne A.-M., Grellet F.; "GASA, a gibberellin-regulated gene "related to the tomato GAST1 gene."; Plant Mol. Biol. 27:743-752(1995).
-i- FUNCTION: INVOLVED IN LATE STAGE STEPS OF GERMINATION.
                                                                                                                                                                                                                                                                                                           STRAIN=CV. COLUMBIA; TISSUE=SEED; MEDLINE=95244835; PubMed=772,7751;
                                                                                                                                                                                                                                                                                                                                                        Magnoliophyta; endicocyteck
mrassicales; Brassicaceae;
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 SEQUENCE
                                      Multigene
                                                                             or send an
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                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota;
                                                                                                                                                                                                                                                                                                                                                                                                 Arabidopsis thaliana (Mouse-ear cress).
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                                                                                                                                                                              TISSUE SPECIFICITY: SILIQUES AND DRY SEE PTM: SIX DISULFIDE BONDS MAY BE PRESENT. SIMILARITY: BELONGS TO THE GAST1 FAMILY.
                                                                                                                                                                                                                    SUBCELLULAR LOCATION: SECRETED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIMILARITY: BELONGS TO THE GAST1 FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE SPECIFICITY: DRY SEEDS AND MATURATING PTM: SIX DISULFIDE BONDS MAY BE PRESENT.
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5; Conser
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 99
                                                                          email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                         Viridiplantae; Embryophyta; Trachecyta; eudicotyledons; core eudicots;
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                                   Signal.
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17.9%;
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Last annotation updat
PROTEIN 3 PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Created)
 M.
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Pred.
POTENTIAL.
GIBBERELLIN-REGULATED PROTEIN
84549B74B08A47FA CRC64;
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GIBBERELLIN-REGULATED
63713C986887573B CRC6
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                                                                                                                                                                                                                                                                                                                                                                         Tracheophyta; Spermatophyta; dicots; Rosidae; eurosids II;
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37;
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ng as its content
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                                                                                      http://www.isb-sib.ch/announce/
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Best Local S
Matches 5
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P00993;
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01-NOV-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                             21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
15-DEC-1998 (Rel. 37, Last annotation update)
CHELONIANIN (BASIC PROTEASE INHIBITOR) (RTPI).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-NOV-1995 (Rel. 32, Last sequence update) 01-NOV-1995 (Rel. 32, Last annotation updat GIBBERELLIN-REGULATED PROTEIN 4 PRECURSOR.
                                                                                                                        Caretta caretta (Loggerhead).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -!- SUBCELLULAR LOCATION: SECRETED. '
-!- TISSUE SPECIFICITY: DEVELOPING ROOTS
-!- INDUCTION: BY GIBBERELLINS.
-!- PTM: SIX DISULFIDE BONDS MAY BE PRESE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                related to the tomato GAST1 gene."; Plant Mol. Biol. 27:743-752(1995).
  TISSUE=EGG WHITE;
Kato I., Tominaga
                                                    SEQUENCE
                                                                                                      Testudines;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Multigene family; Signal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; U15683; AAA74480.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            entities
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Herzog M., Dorne A.-M., Grellet F., "GASA, a gibberellin-regulated gene family
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN=CV. C24; TISSUE=FLOWER BUDS; MEDLINE=95244835; PubMed=7727751;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Brassicales;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids II;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAS4_ARATH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Arabidopsis thaliana (Mouse-ear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P46690;
                                                                                                                                                                                                                                                                                                                                                                                                                                    46 TQCPSECDRRCKKTQYHKACITFCNKCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        39
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SIMILARITY: BELONGS TO THE GAST1 FAMILY.
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5; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26
106 AA;
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(Rel.
(Rel.
                                                                                                   Cryptodira; Chelonioidea; Cheloniidae; Caretta
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 68; DB
Pred. No. 39;
23; Mismatches
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GIBBERELLIN-REGULATED PROTEIN 4.
; 62A3E4A820F57678 CRC64;
                                                                                                                                                                                                                                                                                                           PRT;
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39;
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  RESULT 15
GST1_LYCES
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TURTLE", THE SPEC
PIR; A01224; TITTOR.
HSSP; P00974; 1BRB.
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ACT_SITE
SEQUENCE
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                       entities requires a
                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN-CV.
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5; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       MONEYMAKER;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STANDARD;
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                                                                                                                                                          -!- SUBCELLULAR LOCATION: SECRETED.
-!- TISSUE SPECIFICITY: ALL SHOOT ORGANS.
-!- INDUCTION: BY GIBBERELLINS. INHIBITED BY
-!- PTM: SIX DISULFIDE BONDS MAY BE PRESENT.
-!- SIMILARITY: BELONGS TO THE GAST1 FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-AUG-1992 (Rel. 23, Created)
01-AUG-1992 (Rel. 23, Last sequence up
01-FEB-1996 (Rel. 33, Last annotation
                                                                                                                                                                                                                                                                                                                             MEDLINE=93251105; PubMed=1302047;
Shi L., Gast R.T., Gopalraj M., Olszewski N.E.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Lycopersicon esculentum (Tomato) Eukaryota; Viridiplantae; Embryo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRINTS; PR00003; 4DISULPHCORE.
PRINTS; PR00759; BASICPTASE.
PROSITE; PS00317; 4_DISULFIDE_CORE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PFAM; PF00014; Kunitz_BPTI; PFAM; PF00095; wap; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Trypsin-subtilisin inhibitor from red sea turtle eggwhite consists of two tandem domains -- one Kunitz -- one of a new family.";
                                                                                                                                                                                                                                                                   Plant J. 2:153-159(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROSITE; PS00280; BPTI_KUNITZ_1; 1.
PROSITE; PS50279; BPTI_KUNITZ_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Magnoliophyta; eudicotyledons;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -!- SIMILARITY: THE FIRST DOMAIN BELONGS TO THE BPTI/KUNITZ FAMILY OF
                                                                                                                                                                                                                                                                                                            "Characterization of a shoot-specific;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 74 GICLHGCDSDSDCKEGQKCCFDGCGYIC 101
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license agreement (S license@isb-sib.ch).
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PYRROLIDONE CARBOXYLIC ACID.
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